

EXHIBIT 4

FILED UNDER SEAL

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

SONOS, INC.,

Plaintiff,

vs.

Case No. 3:21-CV-07559-WHA

GOOGLE LLC,

Defendant.

-AND-

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

GOOGLE LLC,

Plaintiff,

vs.

Case No. 3:20-CV-06754-WHA

SONOS, INC.,

Defendant.

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REMOTE VIDEOTAPED DEPOSITION BY VIRTUAL ZOOM OF
DOUGLAS SCHMIDT

Thursday, February 2, 2023

Reported By: Lynne Ledanois, CSR 6811

Job No. 5686109

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<p>1 A Let's see. The devices that I tested for 12:22PM</p> <p>2 this -- the tests that I mention here were the ones</p> <p>3 that are described in the Section 9 entitled "Overview</p> <p>4 of Testing" appearing towards the bottom of Page 31.</p> <p>5 Q Okay. And it's your opinion that you 12:23PM</p> <p>6 don't need to test every one of the accused devices</p> <p>7 in order to provide an infringement opinion; is that</p> <p>8 right?</p> <p>9 A Let's see where I say that. I'm not sure if</p> <p>10 I say that but -- 12:23PM</p> <p>11 Q I'm just asking for your opinion.</p> <p>12 Do you need to test every single accused</p> <p>13 device in order to render an opinion regarding the</p> <p>14 infringement or non-infringement of the accused</p> <p>15 YouTube application? 12:23PM</p> <p>16 A So based on the material in Paragraph 110</p> <p>17 that we talked about before, it's my understanding,</p> <p>18 based on the documents I reviewed, the testimony that</p> <p>19 I read from various Google witnesses in this case that</p> <p>20 there is no relevant functionality of the -- no 12:24PM</p> <p>21 relevant functional differences between the different</p> <p>22 OS versions and there's also no relevant differences</p> <p>23 between the functionality of the accused casting and</p> <p>24 stream transfer technologies within the period that we</p> <p>25 were discussing here, which was September 2020. 12:24PM</p> <p style="text-align: right;">Page 122</p>	<p>1 provided by a cloud-based computing system 12:26PM</p> <p>2 associated with a cloud-based media service'."</p> <p>3 Do you see that?</p> <p>4 A I do.</p> <p>5 Q Is that still your opinion? 12:26PM</p> <p>6 A I believe so. I talk about that in more</p> <p>7 detail in -- hold on a second. I show other examples</p> <p>8 of this in other parts of my other reports.</p> <p>9 Q But I guess my question: So that's still</p> <p>10 your opinion, though; right? 12:26PM</p> <p>11 A Right. As I say, in my reply report in</p> <p>12 Paragraph 49 I show some -- a nice example of this</p> <p>13 where there is a sort of a projection or subset or</p> <p>14 window of sections of the Watch Next queue which is</p> <p>15 available on the YouTube Sender, but that's just a 12:27PM</p> <p>16 projection from the actual Watch Next queue that I</p> <p>17 reference in other parts of my report referring to the</p> <p>18 remote playback queue.</p> <p>19 Q Can a device that stores a local playback</p> <p>20 queue also be configured for a playback of a remote 12:27PM</p> <p>21 playback queue?</p> <p>22 MR. LEE: Objection, form.</p> <p>23 THE WITNESS: I'm not sure what you mean.</p> <p>24 BY MR. HEFAZI:</p> <p>25 Q So if a user device stores a local 12:27PM</p> <p style="text-align: right;">Page 124</p>
<p>1 So based on that, I have not seen Google 12:24PM</p> <p>2 claim that there's differences between the different</p> <p>3 devices, so I don't believe that I would have to</p> <p>4 test each and every one of them in order to find the</p> <p>5 same behavior. 12:24PM</p> <p>6 Q Okay.</p> <p>7 A Relative to the infringement claims that are</p> <p>8 at issue in this case. There could be other</p> <p>9 differences that are unrelated to the infringement</p> <p>10 claims. 12:25PM</p> <p>11 Q Okay. Let's go back to opening report --</p> <p>12 your opening report.</p> <p>13 A Okay.</p> <p>14 Q If you -- this is Exhibit 2. If you can</p> <p>15 go to Paragraph 480. 12:25PM</p> <p>16 A I'm there.</p> <p>17 Q You say in this paragraph, I'm looking at</p> <p>18 the third sentence, "just because a sender device</p> <p>19 might maintain a local copy of a queue does not</p> <p>20 necessarily mean that there is not also" -- sorry, 12:25PM</p> <p>21 strike that. Let me read this again.</p> <p>22 You say in Paragraph 480 of your opening</p> <p>23 report, "just because a sender device might maintain</p> <p>24 a local copy of a queue does not necessarily mean</p> <p>25 that there is not also 'a remote playback queue 12:26PM</p> <p style="text-align: right;">Page 123</p>	<p>1 playback queue, can it also be configured for 12:27PM</p> <p>2 playback of a remote playback queue?</p> <p>3 MR. LEE: Same objection.</p> <p>4 THE WITNESS: Well, again, I think that</p> <p>5 that is -- I think that's explained or shown in more 12:27PM</p> <p>6 detail on Paragraph 49 in my reply report which</p> <p>7 demonstrates a scenario where [REDACTED]</p> <p>8 [REDACTED]</p> <p>9 [REDACTED]</p> <p>10 [REDACTED] 12:28PM</p> <p>11 [REDACTED]</p> <p>12 [REDACTED]</p> <p>13 [REDACTED]</p> <p>14 And the diagram there basically shows I</p> <p>15 think as an example where [REDACTED] 12:28PM</p> <p>16 [REDACTED]</p> <p>17 [REDACTED]</p> <p>18 [REDACTED]</p> <p>19 [REDACTED]</p> <p>20 [REDACTED] 12:29PM</p> <p>21 [REDACTED]</p> <p>22 [REDACTED]</p> <p>23 [REDACTED]</p> <p>24 BY MR. HEFAZI:</p> <p>25 Q Okay. So just to summarize, I think your 12:29PM</p> <p style="text-align: right;">Page 125</p>

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<p>1 A I'm there. 12:35PM</p> <p>2 Q Do you see it says, "the Sender's local</p> <p>3 queue is loaded with one or more 'video IDs' for the</p> <p>4 initial user-selected media item or collection of</p> <p>5 media items and one or more video IDs for 12:36PM</p> <p>6 service-recommended items seeded by the initial user</p> <p>7 selection." Correct?</p> <p>8 A I see what it says, yes.</p> <p>9 Q The sender refers to a user device with an</p> <p>10 accused YouTube application; right? 12:36PM</p> <p>11 A So I think the discussion here on --</p> <p>12 starting on Paragraphs 127 is materially the same to</p> <p>13 the paragraphs I pointed you to earlier when you first</p> <p>14 asked me this line of questioning, which appeared on</p> <p>15 Paragraph 49 in my reply report. 12:36PM</p> <p>16 This is showing [REDACTED] I</p> <p>17 think it was called. You look at the figure at the</p> <p>18 top of Page 38, it's showing how these are a [REDACTED]</p> <p>19 [REDACTED]</p> <p>20 [REDACTED] 12:37PM</p> <p>21 I don't think I used the word "local</p> <p>22 playback queue" here. I think I referred to it as a</p> <p>23 local queue that's, as described in Paragraph 129,</p> <p>24 loaded with one or more video IDs for the initial</p> <p>25 user-selected media. 12:37PM</p> <p style="text-align: right;">Page 130</p>	<p>1 That's basically what's shown in the 12:39PM</p> <p>2 diagram. And it's showing [REDACTED]</p> <p>3 [REDACTED]</p> <p>4 [REDACTED]</p> <p>5 BY MR. HEFAZI: 12:39PM</p> <p>6 Q Can a device be configured for play back</p> <p>7 of a remote playback queue and a local playback</p> <p>8 queue at the same time?</p> <p>9 A Again, I'm not sure if I've offered an</p> <p>10 opinion in the context of the '033 patent as it 12:39PM</p> <p>11 relates to local playback queue versus remote playback</p> <p>12 queue.</p> <p>13 I think as I've said, there is a remote</p> <p>14 playback queue as I've identified a number of times</p> <p>15 which is the so-called Watch Next queue as I talk 12:39PM</p> <p>16 about in Paragraph 128.</p> <p>17 And there's also [REDACTED]</p> <p>18 [REDACTED]</p> <p>19 [REDACTED] video IDs [REDACTED]</p> <p>20 [REDACTED] 12:39PM</p> <p>21 Q So you don't have an opinion about whether</p> <p>22 a device can be configured for playback on a local</p> <p>23 playback queue and a remote playback queue at the</p> <p>24 same time; is that right?</p> <p>25 A I don't recall having an opinion on that. 12:40PM</p> <p style="text-align: right;">Page 132</p>
<p>1 And then I talk about how that's [REDACTED] 12:37PM</p> <p>2 [REDACTED] using various techniques.</p> <p>3 Q So the accused YouTube applications store</p> <p>4 a local VQ on the mobile device; correct?</p> <p>5 MR. LEE: Objection to form. 12:37PM</p> <p>6 THE REPORTER: Nima, did you say "VQ,"</p> <p>7 Victor?</p> <p>8 MR. HEFAZI: I don't actually remember.</p> <p>9 Let me rephrase and reask the question.</p> <p>10 Q A user device running the accused YouTube 12:38PM</p> <p>11 applications loads its local queue with items from a</p> <p>12 YouTube server; right?</p> <p>13 MR. LEE: Objection to form.</p> <p>14 THE WITNESS: So what is -- what is shown</p> <p>15 here in the discussion on Pages 37 and 38 starting 12:38PM</p> <p>16 roughly around Paragraph 120 and continuing down to</p> <p>17 include Paragraph 129, based on the diagram from the</p> <p>18 Google documentation, the sender's local queue,</p> <p>19 which is the YouTube application, is [REDACTED]</p> <p>20 [REDACTED] video IDs [REDACTED] 12:38PM</p> <p>21 [REDACTED]</p> <p>22 [REDACTED]</p> <p>23 And then also one or more video IDs for</p> <p>24 [REDACTED]</p> <p>25 [REDACTED] 12:39PM</p> <p style="text-align: right;">Page 131</p>	<p>1 If you can point me to somewhere in my report that 12:40PM</p> <p>2 uses those terms, I'll be happy to take a look at it.</p> <p>3 But I think as I mentioned when we first</p> <p>4 started talking about this, the material related to</p> <p>5 that diagram, which again also occurs in my reply 12:40PM</p> <p>6 report, demonstrates what I think I'm describing</p> <p>7 here about how there is a remote playback queue,</p> <p>8 which is the Watch Next queue, which is then used</p> <p>9 [REDACTED]</p> <p>10 [REDACTED] 12:40PM</p> <p>11 Q Can a device be configured to play back</p> <p>12 both a local queue and a remote playback queue at</p> <p>13 the same time?</p> <p>14 MR. LEE: Objection, form.</p> <p>15 THE WITNESS: I'm not sure what you mean 12:41PM</p> <p>16 by that. Sorry, go ahead.</p> <p>17 BY MR. HEFAZI:</p> <p>18 Q You said that the accused YouTube</p> <p>19 application had a local queue; right?</p> <p>20 A I think I show some examples of diagrams 12:41PM</p> <p>21 here from Google documentation that shows the way in</p> <p>22 which this works in general.</p> <p>23 Q Okay. And so in your opinion, is the user</p> <p>24 device configured to play back its local queue?</p> <p>25 A Again, I'm not sure how you're using the 12:41PM</p> <p style="text-align: right;">Page 133</p>

<p>1 showdown, the court disagreed with your 12:52PM 2 interpretation of the term "playback queue" and your 3 infringement opinions? 4 A So it's my understanding that there is a 5 court order that's at issue in the '033 patent, which 12:52PM 6 is what I've referred to a couple of times, about what 7 constitutes a playback queue. 8 And that's the -- that's the construction 9 that I have been applying in the context of the '033 10 patent. So, yes, I'm aware of that. 12:53PM 11 Q Let's go to Exhibit 2 real quick. And 12 then we can take a break. But I have a couple of 13 just final questions here. 14 In Exhibit 2, you have a section called 15 "Claim Construction" starting at Paragraph 112. 12:53PM 16 A All right. Let me go there. 17 Yes, I see that. 18 Q Does this section describe all of the 19 requirements of a playback queue under the court's 20 construction? 12:53PM 21 A My opening report describes all the sections 22 that the court has ordered construe or involve a 23 playback queue. As to whether that particular section 24 describes them all, I'm not sure. 25 But the body of the corpus, the entirety 12:54PM Page 142</p>	<p>1 report, the opening report covers them. 12:55PM 2 And at the time of the opening report, I 3 was not really aware that Dr. B was going to try to 4 come up with different interpretations of playback 5 queue that were inconsistent with the court's order. 12:56PM 6 So when I discovered that after reading 7 his opening report, which of course I didn't have 8 before I served my opening report, then I was more 9 explicit in reiterating what the court's order was 10 and making it clear why I thought he was not 12:56PM 11 being -- he was not conforming to those 12 characteristics. 13 But those characteristics are indeed 14 embodied in my analysis in my opening report. 15 MR. HEFAZI: Okay. Let's take a break for 12:56PM 16 lunch. 17 THE VIDEOGRAPHER: We're off the record. 18 It's 12:56 p.m. 19 (Recess taken.) 20 THE VIDEOGRAPHER: We're back on the 1:33PM 21 record. It's 1:33 p.m. 22 BY MR. HEFAZI: 23 Q Now, Dr. Schmidt, the court construed the 24 term "playback queue" as a list of multimedia 25 content selected for playback; is that correct? 1:34PM Page 144</p>
<p>1 of my opening report does indeed address all four of 12:54PM 2 the playback queue characteristics that were ordered 3 by the court. 4 Q Do you mention any of those four 5 characteristics in your section on claim 12:54PM 6 construction here in the opening report? 7 A Again, I don't recall whether I mentioned 8 them in that section. But they appear throughout the 9 opening report. 10 Q Did you say anywhere in the opening report 12:54PM 11 that the term "playback queue" has an additional set 12 of characteristics? 13 A Again, as I describe the characteristics of 14 a playback queue throughout my analysis in my opening 15 report, I touch on all four of the characteristics 12:55PM 16 that are put forth in the court's order. 17 Q My question is a little bit different. 18 Did you -- at any point in your opening 19 report, can you point me to anywhere where you 20 stated that the court's construction of playback 12:55PM 21 queue required those four characteristics that you 22 identified in your rebuttal and reply reports? 23 A Again, as I mentioned a couple of times now, 24 the characteristics that the court put forth in the 25 order are contained in various places in my opening 12:55PM Page 143</p>	<p>1 A That's correct, with some other 1:34PM 2 characteristics that we were talking about earlier. 3 Q Okay. And we'll get to those in a second. 4 But to start, you stated for purposes of 5 the '033 patent that you will be interpreting the 1:34PM 6 court's construction as a list of one or more media 7 items selected for playback; correct? 8 A So I think I noted this in my opening 9 report, but in my reply report I also mention that the 10 '033 patent claims don't recite the term "multimedia 1:34PM 11 content" as the -- as opposed to the '615 patent 12 claims which did use the word "multimedia content." 13 So the '033 patent claims talk about a 14 media item and, therefore, I interpreted the court's 15 construction of playback queue, which is provided in 1:35PM 16 the context of Claim 13 in the '615 patent, as a 17 list of one or more media items selected for 18 playback. 19 However, as I also talk about in 20 Paragraph 112 of my reply report, my opinions would 1:35PM 21 remain the same under the exact construction of 22 playback queue provided in the context of Claim 13 23 in the '615 patent. 24 And that's because a POSITA would 25 understand that "multimedia content" is synonymous 1:35PM Page 145</p>

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<p>1 I, LYNNE M. LEDANOIS, a Certified</p> <p>2 Shorthand Reporter of the State of California, do</p> <p>3 hereby certify:</p> <p>4 That the foregoing proceedings were taken</p> <p>5 before me at the time and place herein set forth;</p> <p>6 that a record of the proceedings was made by me</p> <p>7 using machine shorthand which was thereafter</p> <p>8 transcribed under my direction; that the foregoing</p> <p>9 transcript is a true record of the testimony given.</p> <p>10 Further, that if the foregoing pertains to</p> <p>11 the original transcript of a deposition in a Federal</p> <p>12 Case, before completion of the proceedings, review</p> <p>13 of the transcript [] was [x] wasn't requested.</p> <p>14 I further certify I am neither financially</p> <p>15 interested in the action nor a relative or employee</p> <p>16 of any attorney or party to this action.</p> <p>17 IN WITNESS WHEREOF, I have this date</p> <p>18 subscribed my name.</p> <p>19 Dated: February 4, 2023</p> <p>20</p> <p>21</p> <p>22</p> <p>23  LYNNE MARIE LEDANOIS</p> <p>24 CSR No. 6811</p> <p>25</p> <p style="text-align: right;">Page 290</p>	<p>1 __ Federal R&S Requested (FRCP 30(e)(1)(B)) – Locked .PDF</p> <p>2 Transcript - The witness should review the transcript and</p> <p>3 make any necessary corrections on the errata pages included</p> <p>4 below, notating the page and line number of the corrections.</p> <p>5 The witness should then sign and date the errata and penalty</p> <p>6 of perjury pages and return the completed pages to all</p> <p>7 appearing counsel within the period of time determined at</p> <p>8 the deposition or provided by the Federal Rules.</p> <p>9 _x_ Federal R&S Not Requested - Reading & Signature was not</p> <p>10 requested before the completion of the deposition.</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p style="text-align: right;">Page 292</p>
<p>1 NIMA HEFAZI, ESQ.</p> <p>2 nimahefazi@quinnemanuel.com</p> <p>3 February 4, 2023</p> <p>4 RE: SONOS, INC. vs. GOOGLE LLC</p> <p>5 February 2, 2023, DOUGLAS SCHMIDT, JOB NO. 5686109</p> <p>6 The above-referenced transcript has been</p> <p>7 completed by Veritext Legal Solutions and</p> <p>8 review of the transcript is being handled as follows:</p> <p>9 __ Per CA State Code (CCP 2025.520 (a)-(e)) – Contact Veritext</p> <p>10 to schedule a time to review the original transcript at</p> <p>11 a Veritext office.</p> <p>12 __ Per CA State Code (CCP 2025.520 (a)-(e)) – Locked .PDF</p> <p>13 Transcript - The witness should review the transcript and</p> <p>14 make any necessary corrections on the errata pages included</p> <p>15 below, notating the page and line number of the corrections.</p> <p>16 The witness should then sign and date the errata and penalty</p> <p>17 of perjury pages and return the completed pages to all</p> <p>18 appearing counsel within the period of time determined at</p> <p>19 the deposition or provided by the Code of Civil Procedure.</p> <p>20 __ Waiving the CA Code of Civil Procedure per Stipulation of</p> <p>21 Counsel - Original transcript to be released for signature</p> <p>22 as determined at the deposition.</p> <p>23 __ Signature Waived – Reading & Signature was waived at the</p> <p>24 time of the deposition.</p> <p>25</p> <p style="text-align: right;">Page 291</p>	<p>1 SONOS, INC. vs. GOOGLE LLC</p> <p>2 DOUGLAS SCHMIDT (#5686109)</p> <p>3 E R R A T A S H E E T</p> <p>4 PAGE__ LINE__ CHANGE__</p> <p>5</p> <p>6 REASON__</p> <p>7 PAGE__ LINE__ CHANGE__</p> <p>8</p> <p>9 REASON__</p> <p>10 PAGE__ LINE__ CHANGE__</p> <p>11</p> <p>12 REASON__</p> <p>13 PAGE__ LINE__ CHANGE__</p> <p>14</p> <p>15 REASON__</p> <p>16 PAGE__ LINE__ CHANGE__</p> <p>17</p> <p>18 REASON__</p> <p>19 PAGE__ LINE__ CHANGE__</p> <p>20</p> <p>21 REASON__</p> <p>22</p> <p>23</p> <p>24 WITNESS Date</p> <p>25</p> <p style="text-align: right;">Page 293</p>